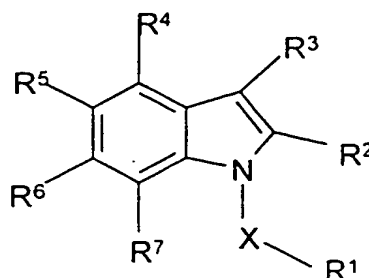


Claims

1. The use of a compound of formula (I)



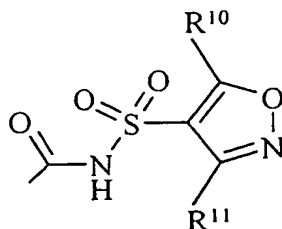
(I)

or a pharmaceutically acceptable salt, amide or ester thereof;

- 10 X is CH<sub>2</sub> or SO<sub>2</sub>

R<sup>1</sup> is an optionally substituted aryl or heteroaryl ring;

R<sup>2</sup> is carboxy, cyano, -C(O)CH<sub>2</sub>OH, -CONHR<sup>8</sup>, -SO<sub>2</sub>NHR<sup>9</sup>, tetrazol-5-yl, SO<sub>3</sub>H, or a group of formula (VI)



(VI)

15

where R<sup>8</sup> is selected from hydrogen, alkyl, aryl, cyano, hydroxy, -SO<sub>2</sub>R<sup>12</sup> where R<sup>12</sup> is alkyl, aryl, heteroaryl, or haloalkyl, or R<sup>8</sup> is a group-(CHR<sup>13</sup>)<sub>r</sub>-COOH where r is an integer of 1-3 and each R<sup>13</sup> group is independently selected from hydrogen or alkyl; R<sup>9</sup> is hydrogen, alkyl, optionally substituted aryl such as optionally substituted phenyl or optionally substituted

- 20 heteroaryl such as 5 or 6 membered heteroaryl groups. or a group COR<sup>14</sup> where R<sup>14</sup> is alkyl, aryl, heteroaryl or haloalkyl; R<sup>10</sup> and R<sup>11</sup> are independently selected from hydrogen or alkyl, particularly C<sub>1-4</sub> alkyl;

$R^3$  is a group  $OR^{15}$ ,  $S(O)_qR^{15}$ ,  $NHCOR^{16}$ ,  $NHSO_2R^{16}$ ,  $(CH_2)_sCOOH$ ,  $(CH_2)_tCONR^{17}R^{18}$ ,  $NR^{17}R^{18}$ ,  $SO_2NR^{17}R^{18}$  or optionally substituted alkenyl, where  $q$  is 0, 1 or 2,  $s$  is 0 or an integer of from 1 to 4,  $t$  is 0 or an integer of from 1 to 4,  $R^{15}$  is a substituted alkyl or cycloalkyl group or an optionally substituted heteroaryl group,  $R^{16}$  is optionally substituted alkyl,

- 5 optionally substituted aryl or optionally substituted heteroaryl and  $R^{17}$  and  $R^{18}$  are independently selected from hydrogen, optionally substituted alkyl, optionally substituted aryl and optionally substituted heteroaryl, with the proviso that at least one of  $R^{17}$  or  $R^{18}$  is other than hydrogen, or  $R^{16}$  and  $R^{17}$  together with the nitrogen atom to which they are attached form an optionally substituted heterocyclic ring which optionally contains further
- 10 heteroatoms; and

$R^4$ ,  $R^5$ ,  $R^6$  and  $R^7$  are independently selected from hydrogen, a functional group or an optionally substituted hydrocarbyl groups or optionally substituted heterocyclic groups, provided that  $R^4$  is other than a group,  $OR^{18}$ ,  $S(O)_mR^{18}$ ,  $NR^{19}R^{20}$ ,  $C(O)NR^{19}R^{20}$ ,  $NHCOR^{18}$ ,  $NHSO_2R^{18}$  or  $OCONR^{19}R^{20}$  or an alkyl group substituted by  $OR^{18}$ ,  $S(O)_mR^{18}$ ,  $NR^{19}R^{20}$  where  $R^{18}$ ,

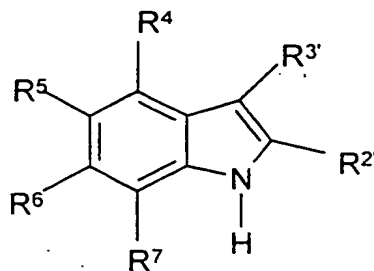
- 15  $R^{19}$  and  $R^{20}$  are independently selected from hydrogen or optionally substituted hydrocarbyl, or  $R^{19}$  and  $R^{20}$  together with the atom to which they are attached, form an optionally substituted heterocyclic ring as defined above which optionally contains further heteroatoms such as  $S(O)_n$ , oxygen and nitrogen,  $m$  is 0 or an integer of 1-3 and  $R^{18}$  is a substituted hydrogen-containing alkyl group,
- 20 for use in the preparation of a medicament for the inhibition of monocyte chemoattractant protein-1 and/or RANTES induced chemotaxis.

2. The use according to claim 1 wherein in the compound of formula (I),  $R^4$  is hydrogen, hydroxy, halo, alkoxy, aryloxy or an optionally substituted hydrocarbyl group or optionally
- 25 substituted heterocyclic group.

3. The use according to any one of the preceding claims Particular groups  $R^3$  include  $OR^{15}$ ,  $S(O)_qR^{15}$ ,  $NHCOR^{16}$ ,  $NHSO_2R^{16}$ ,  $SO_2NR^{17}R^{18}$  where  $q$ ,  $R^{15}$ ,  $R^{16}$ ,  $R^{17}$  and  $R^{18}$  are as defined in claim 1.

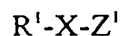
4. The use according to any one of the preceding claims wherein  $R^3$  is a group of formula  $-O(CH_2)_a[(CHOH)(CH_2)_b]_dCH_2OH$  where  $a$  is 0 or an integer of from 1 to 4,  $b$  is 0 or an integer of from 1 to 3, and  $d$  is 0, or 1.
5. The use according to any one of the preceding claims wherein  $R^1$  is 3,4-dichlorophenyl, 3-fluoro-4-chlorophenyl, 3-chloro-4-fluorophenyl or 2,3-dichloropyrid-5-yl.
6. The use according to any one of the preceding claims where  $X$  is  $CH_2$ .
7. A compound for use in therapy, said compound comprising a compound of formula (1A) which is a compound of formula (I) as defined in claim 1 subject to the following provisos:
- (i) when  $R^2$  is carboxy or a salt or amide thereof, at least three of  $R^4$ ,  $R^5$ ,  $R^6$  and  $R^7$  are hydrogen, and  $R^3$  is  $S(O)_qR^{15}$ ,  $R^{15}$  is other than  $C_{1-4}$  alkyl substituted by carboxy or an ester or amide derivative thereof;
- (ii) when  $R^3$  is a group  $NHCO R^{16}$  or  $NHSO_2R^{16}$ ,  $R^{16}$  is optionally substituted alkyl; and
- (iii) where  $R^3$  is a group  $SR^{14}$  where  $R^{14}$  is 2-quinolylmethyl,  $R^2$  is  $COOH$  or an ethyl ester thereof, each of  $R^4$ ,  $R^5$ , and  $R^7$  are hydrogen,  $R^1$  is 4-chlorophenyl,  $R^6$  is other than 2-quinolylmethyl.
8. A pharmaceutical compositions comprising a compound of formula (IA) as defined in claim 7 in combination with a pharmaceutically acceptable carrier.
9. A compound of formula (IB) which is a compound of formula (IA) as defined in claim 7, subject to the following further provisos:
- (iv) where  $R^3$  is a group  $COOH$  or  $CH_2COOH$ ,  $R^2$  is  $COOH$  and each of  $R^4$ ,  $R^5$ ,  $R^6$  and  $R^7$  are hydrogen,  $R^1$  is other than unsubstituted phenyl; and
- (v) where  $R^3$  is a group  $CH_2COOH$ ,  $R^2$  is  $COOH$  and each of  $R^4$ ,  $R^5$ , and  $R^7$  are hydrogen,  $R^1$  is 4-chlorophenyl,  $R^6$  is other than methoxy; and
- (vi) when  $R^3$  is  $OR^{15}$  or  $S(O)_qR^{15}$ ,  $R^{15}$  is other than  $C_{1-6}$  haloalkyl; and
- (vii) when  $R^2$  is  $COOCH_2CH_3$ , each of  $R^4$ ,  $R^5$ ,  $R^6$  and  $R^7$  are hydrogen, and  $R^1$  is 4-chlorophenyl, then  $R^3$  is other than a group  $CH=CH(CN)_2$ .

10. A method of preparing a compound of formula (I) as defined in claim 1, which method comprises reacting a compound of formula (VII)



(VII)

where R<sup>4</sup>, R<sup>5</sup>, R<sup>6</sup> and R<sup>7</sup> are as defined in relation to formula (I), R<sup>2'</sup> is a group R<sup>2</sup> as defined in relation to formula (I) or a protected form thereof, and R<sup>3'</sup> is a group R<sup>3</sup> as defined in relation to formula (I) or a precursor thereof; with compound of formula (VIII)



(VIII)

where R<sup>1</sup> and X are as defined in relation to formula (I) and Z<sup>1</sup> is a leaving group; and thereafter if desired or necessary carrying out one or more of the following steps:

- (i) changing a precursor group R<sup>3'</sup> to a group R<sup>3</sup> or a group R<sup>3</sup> to a different such group;
- (ii) removing any protecting group from R<sup>2'</sup>.